

FIG. 1

PRIOR ART

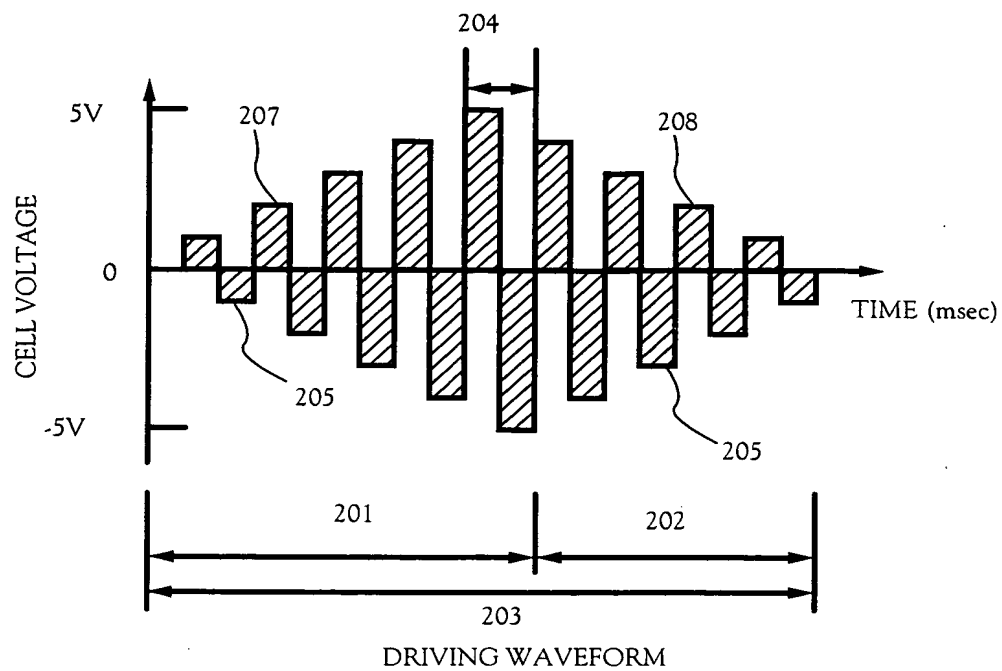


FIG. 2A

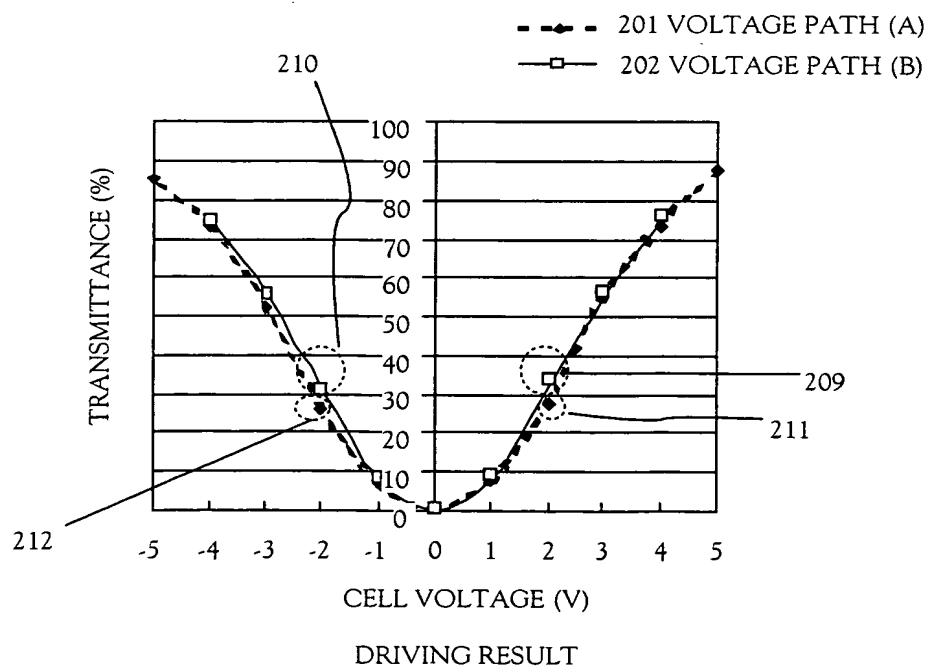


FIG. 2B

DRIVING WAVEFORM AND DRIVING RESULT
WHEN "0V" RESET PERIOD IS NOT PROVIDED

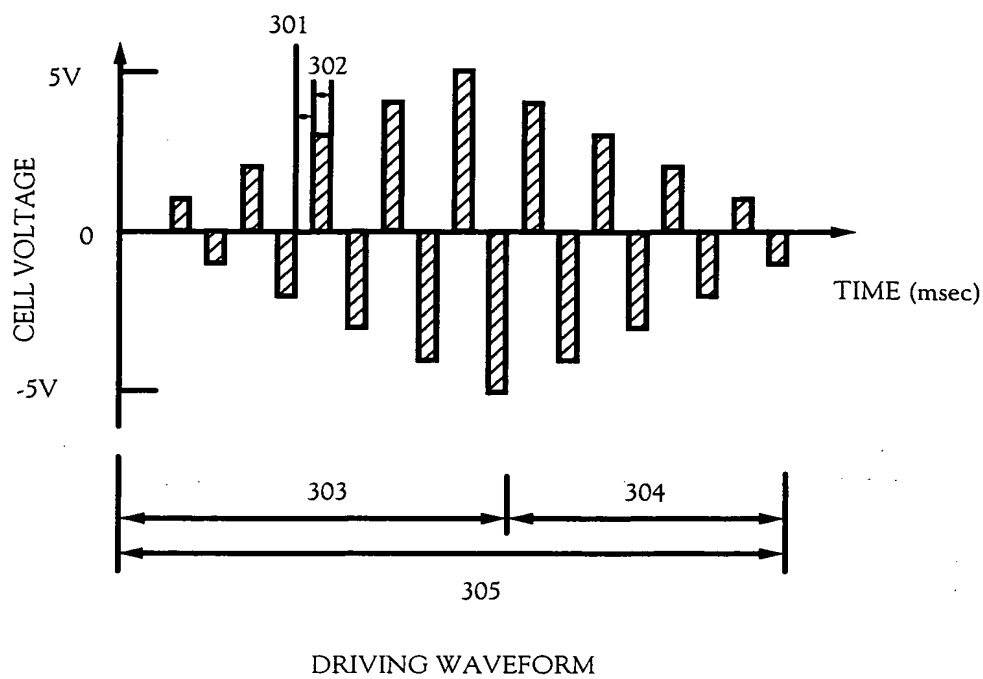


FIG. 3A

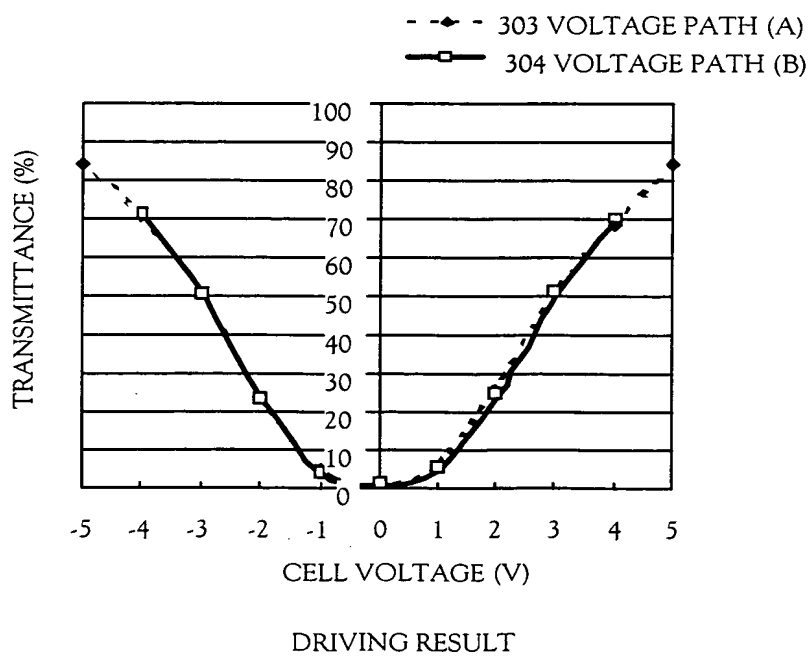


FIG. 3B

DRIVING WAVEFORM AND DRIVING RESULT
WHEN "0V" RESET PERIOD IS PROVIDED

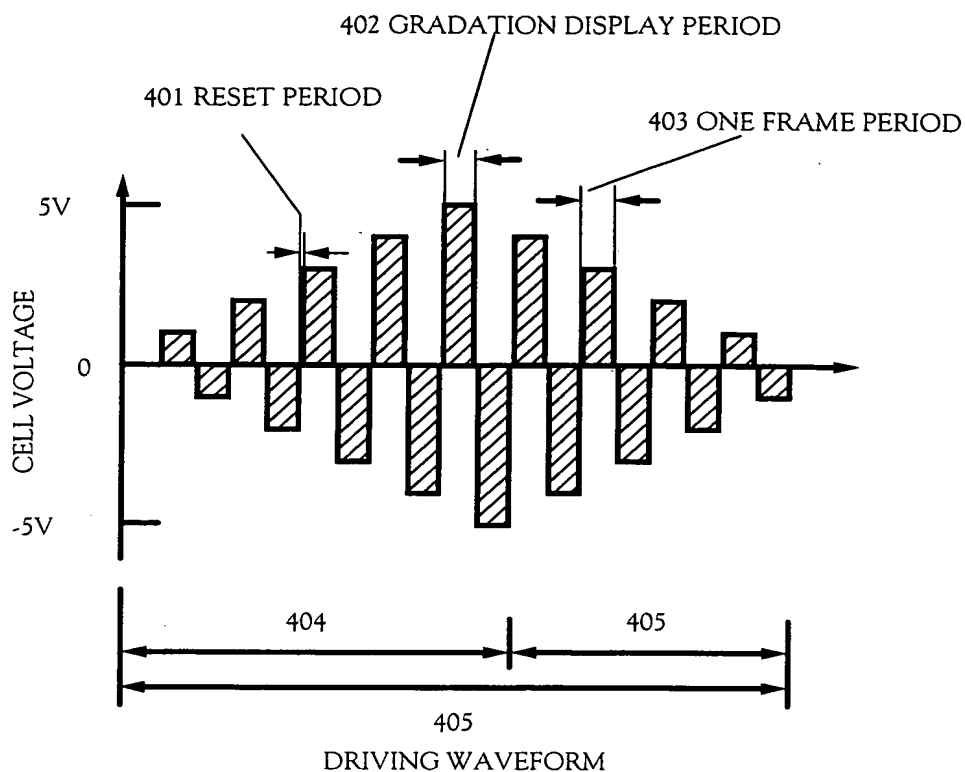


FIG. 4A

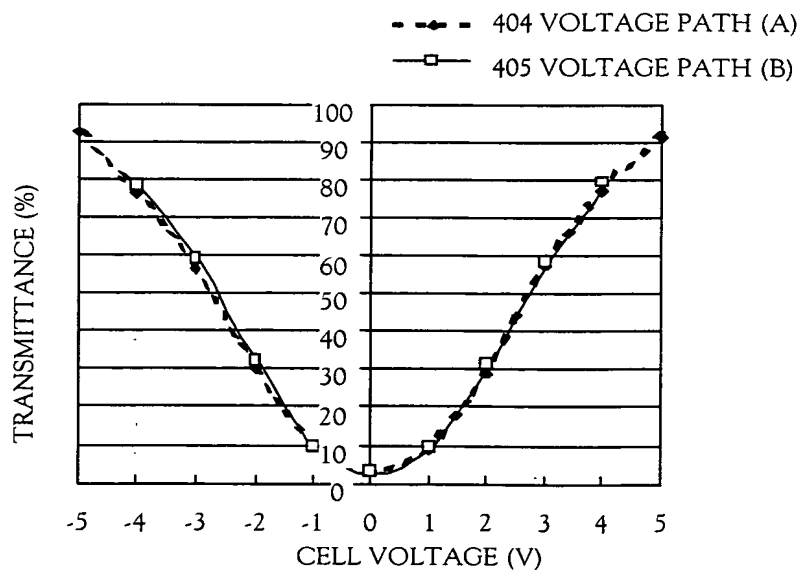


FIG. 4B

DRIVING WAVEFORM AND DRIVING RESULT
WHEN "0V" RESET PERIOD IS SHORT
RESET PERIOD: 2msec GRADATION DISPLAY PERIOD: 14.6msec

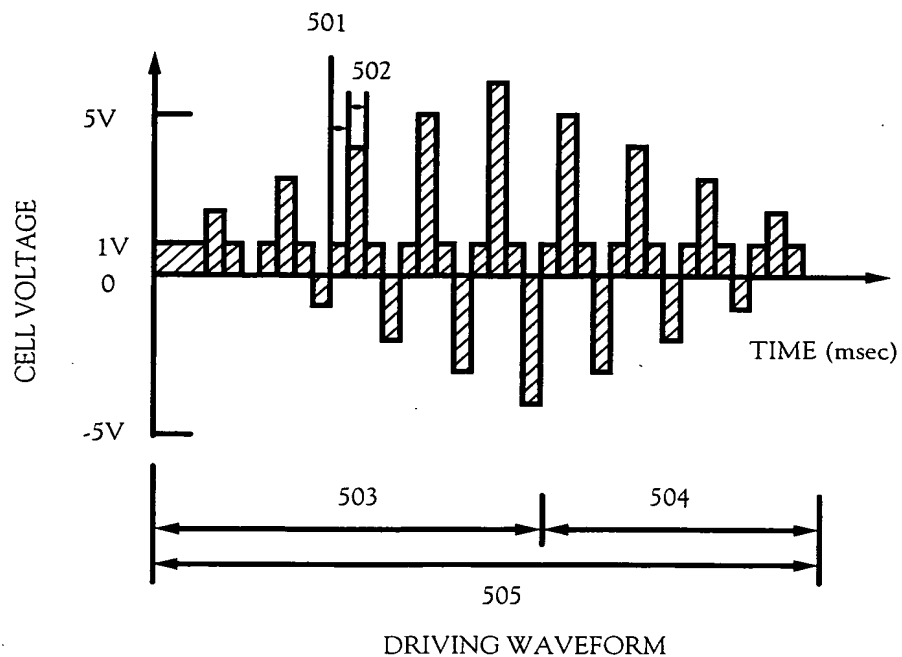


FIG. 5A

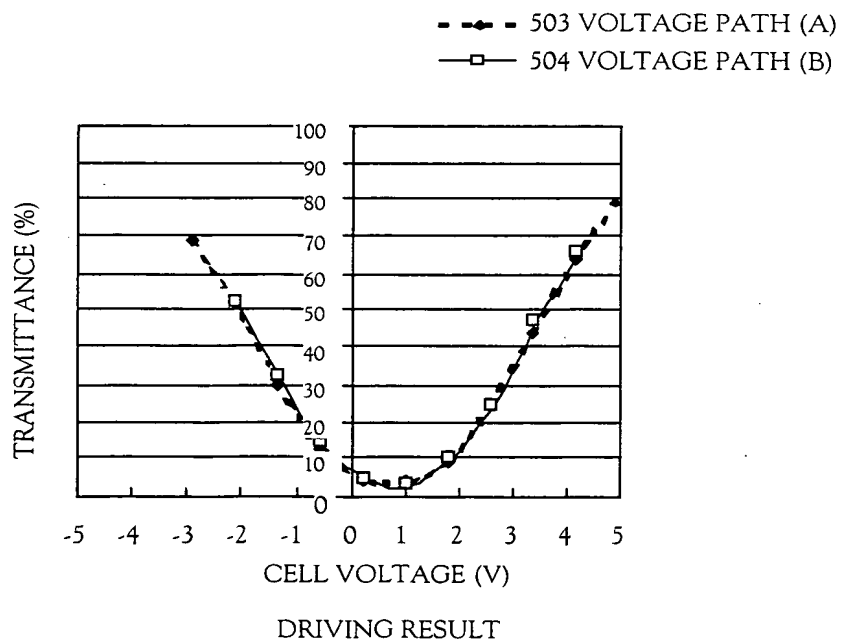


FIG. 5B

DRIVING WAVEFORM AND DRIVING RESULT
WHEN RESET VOLTAGE OF "1V" IS PROVIDED

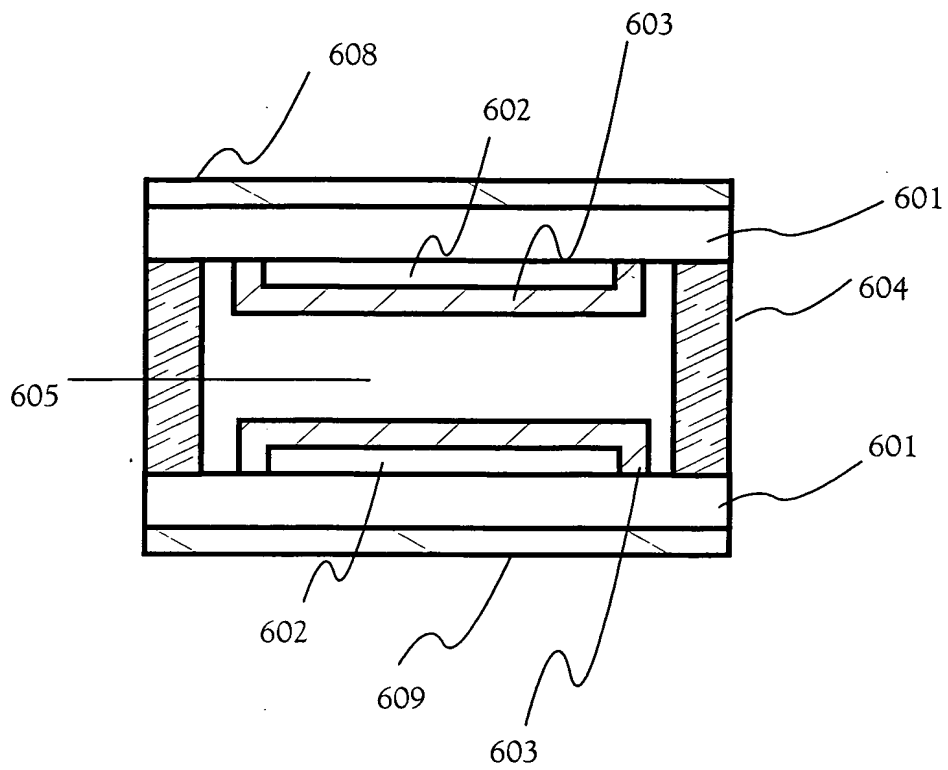


FIG. 6A

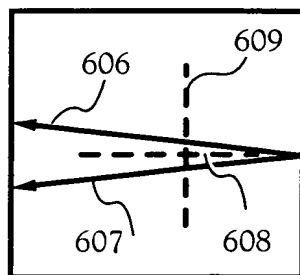


FIG. 6B

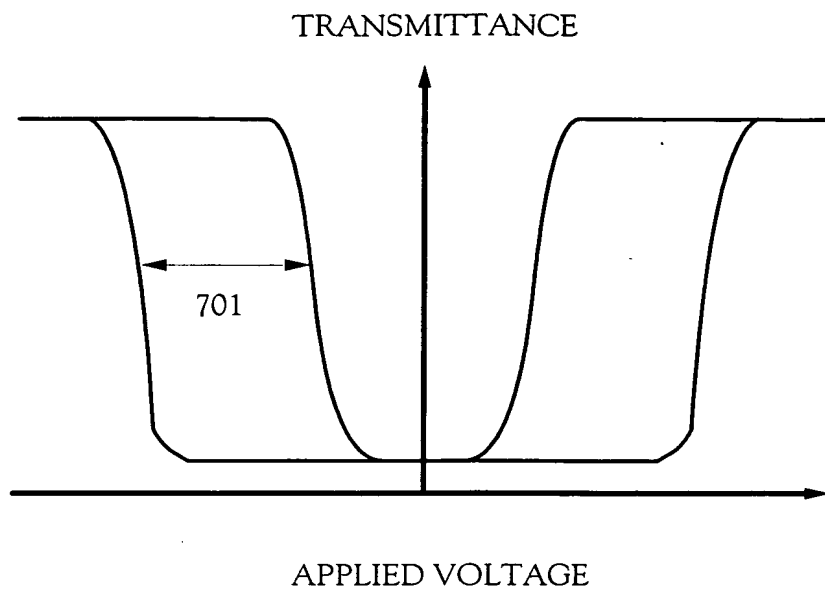


FIG. 7A

PRIOR ART

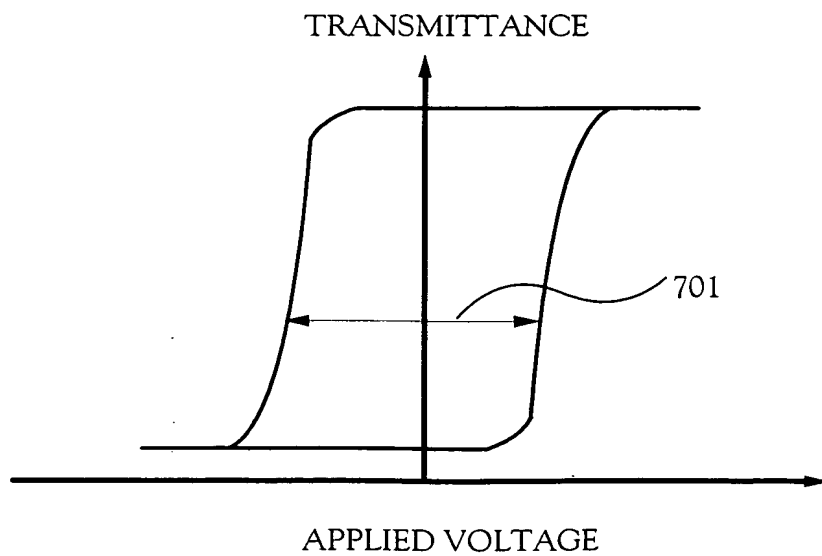


FIG. 7B

PRIOR ART

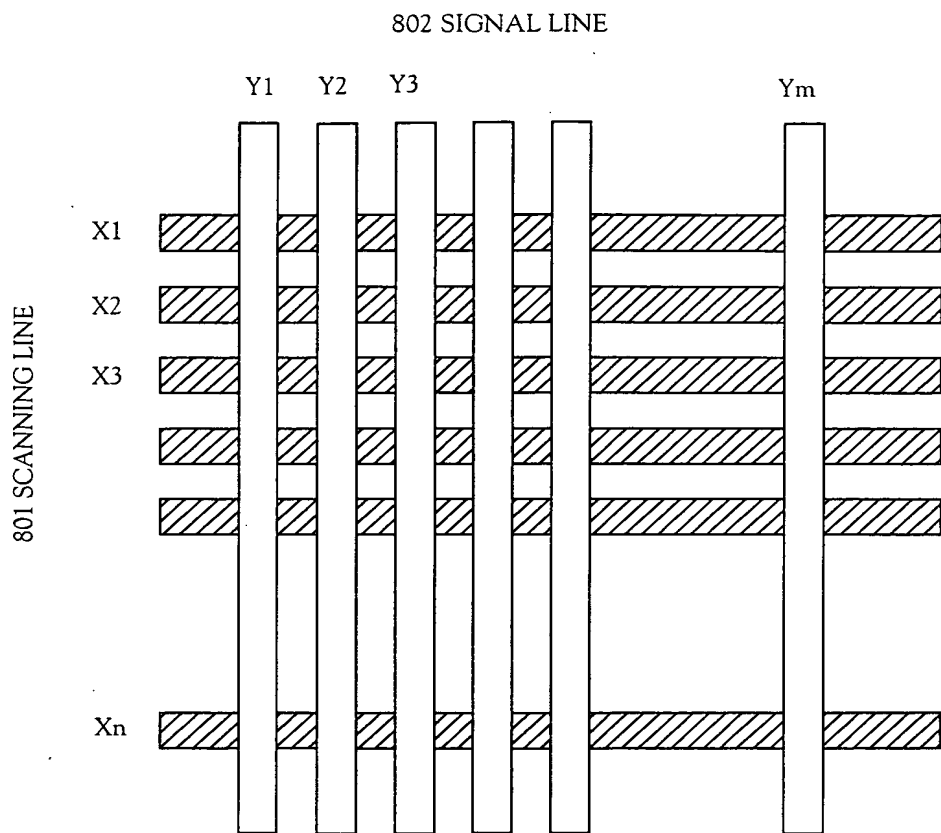


FIG. 8

PRIOR ART

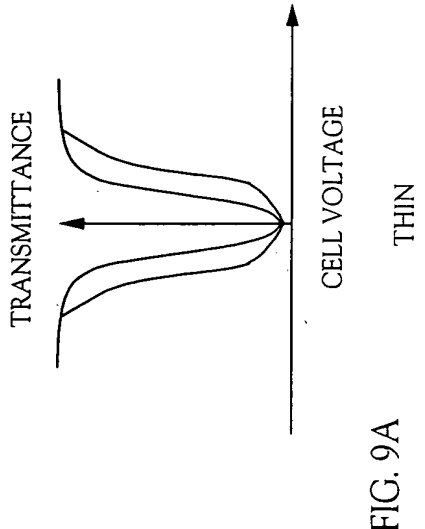


FIG. 9A

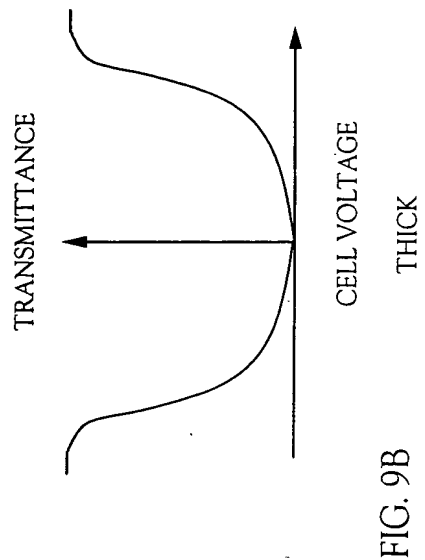


FIG. 9B

ORIENTATION FILM THICKNESS

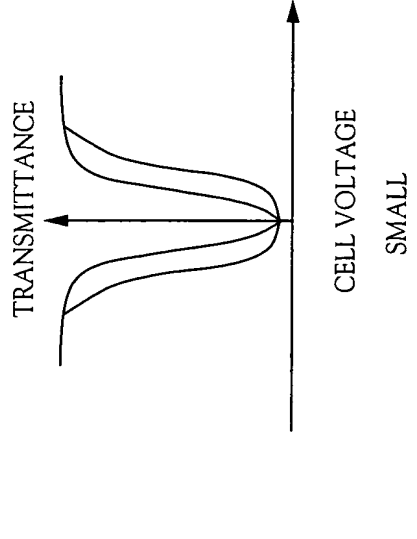


FIG. 9C

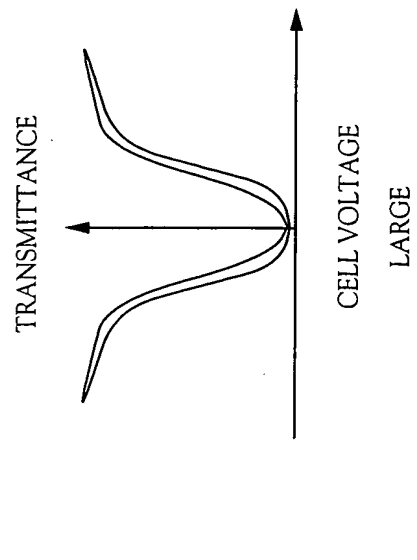


FIG. 9D

SPONTANEOUS POLARIZATION

CHARACTERISTICS OF HYSTERESIS OF THRESHOLDLESS LIQUID CRYSTAL

FIG. 10

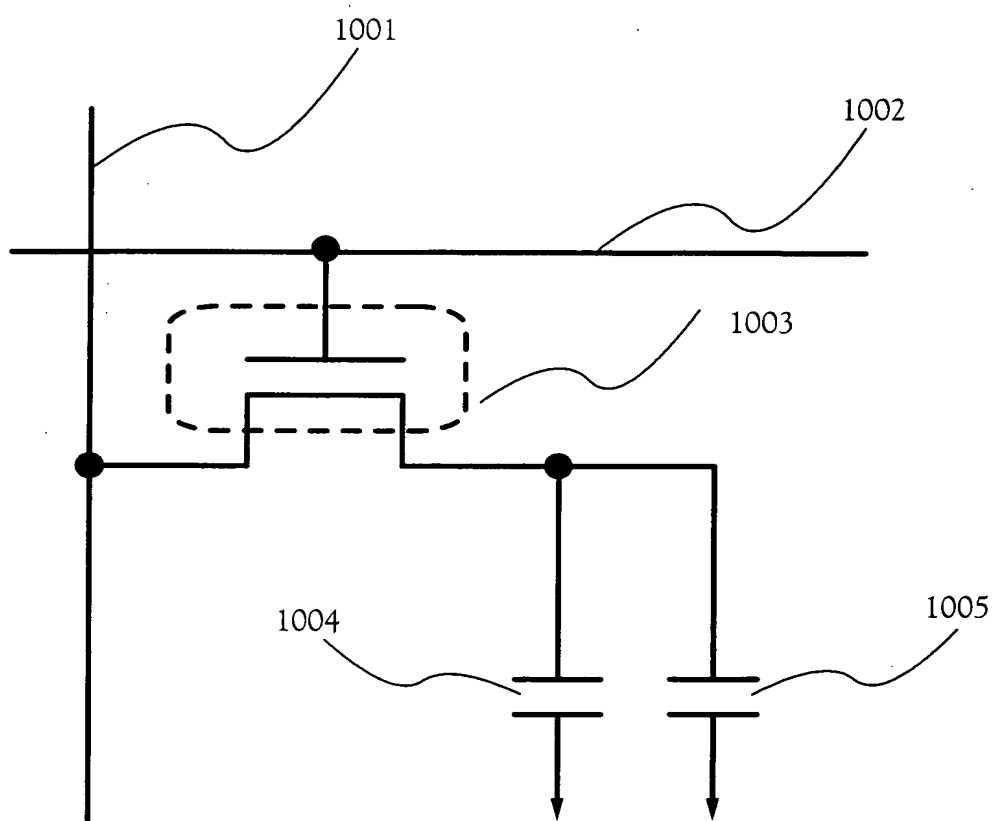


FIG. 10

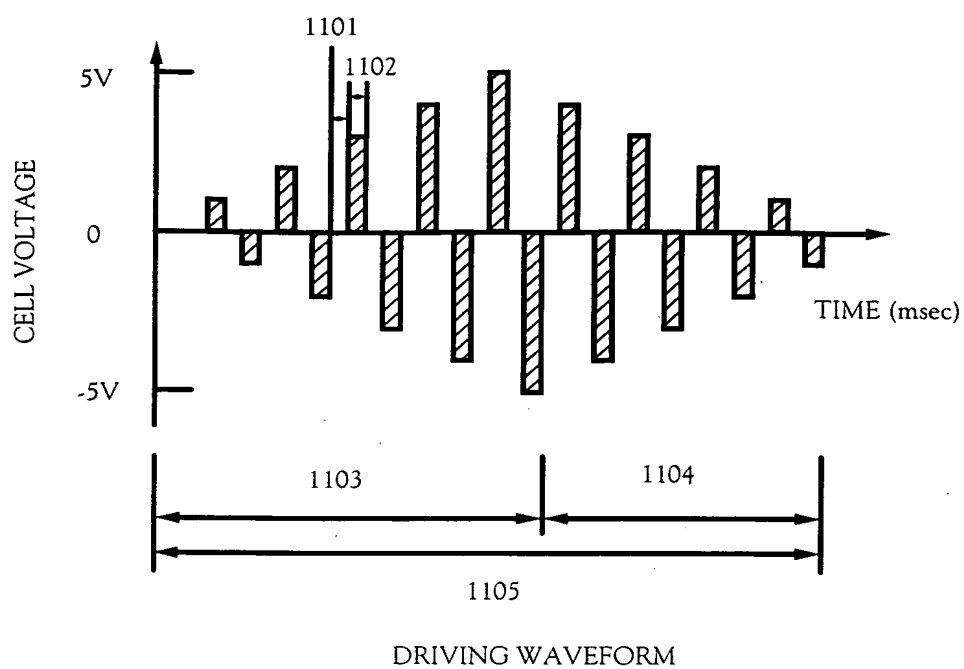


FIG. 11A

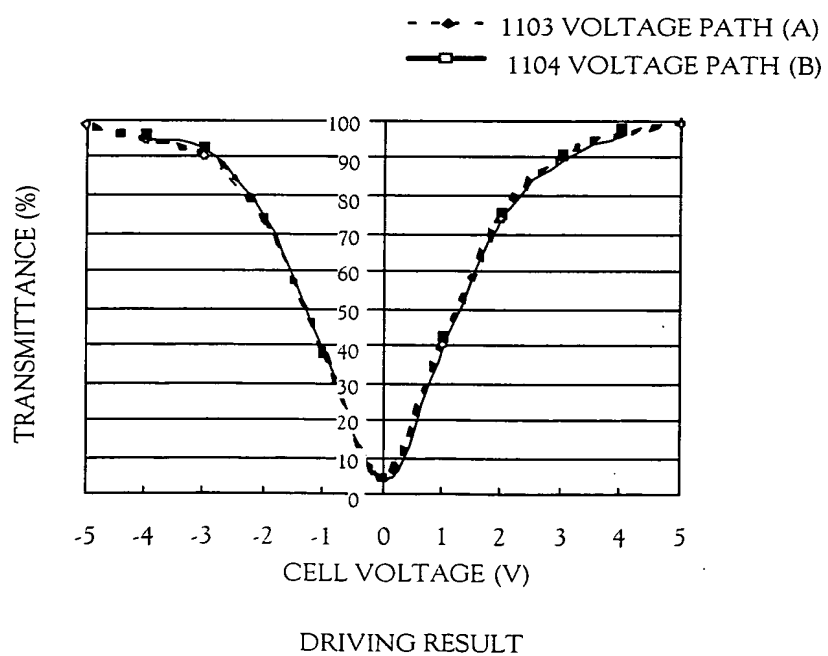


FIG. 11B

DRIVING WAVEFORM AND DRIVING RESULT
WHEN "0V" RESET PERIOD IS PROVIDED
SPONTANEOUS POLARIZATION OF LIQUID CRYSTAL: 40 nC/cm²

RESPONSE TIME (msec)

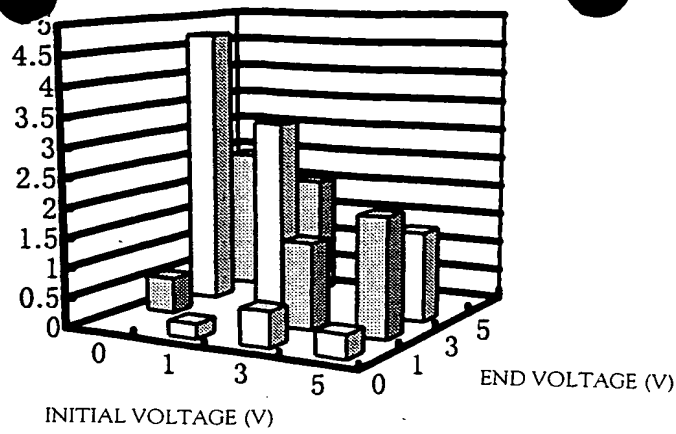


FIG. 12A

RESPONSE TIME BETWEEN
POSITIVE POLARITY VOLTAGES

RESPONSE TIME (msec)

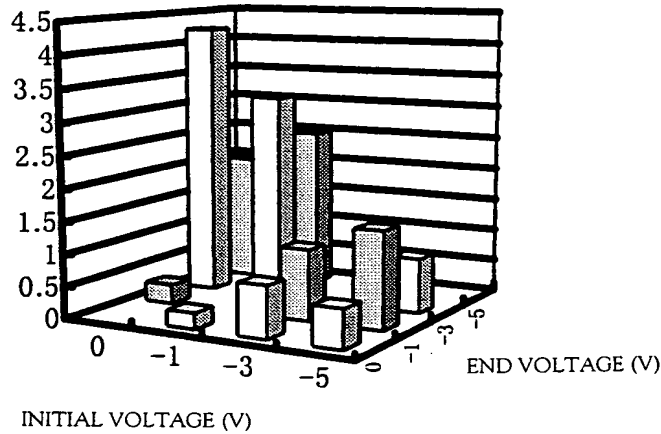


FIG. 12B

RESPONSE TIME BETWEEN
NEGATIVE POLARITY VOLTAGES

RESPONSE TIME (msec)

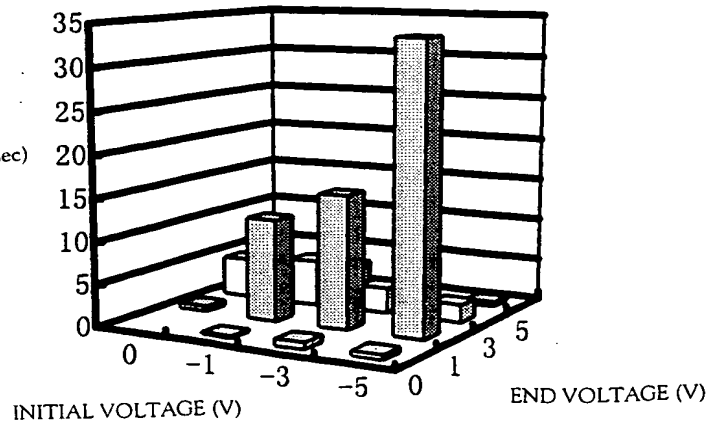


FIG. 12C

RESPONSE TIME BETWEEN
OPPOSITE POLARITY VOLTAGES

OPTICAL RESPONSE OF THRESHOLDLESS LIQUID CRYSTAL
WHEN "0V" RESET PERIOD IS NOT PROVIDED

FIG. 13B

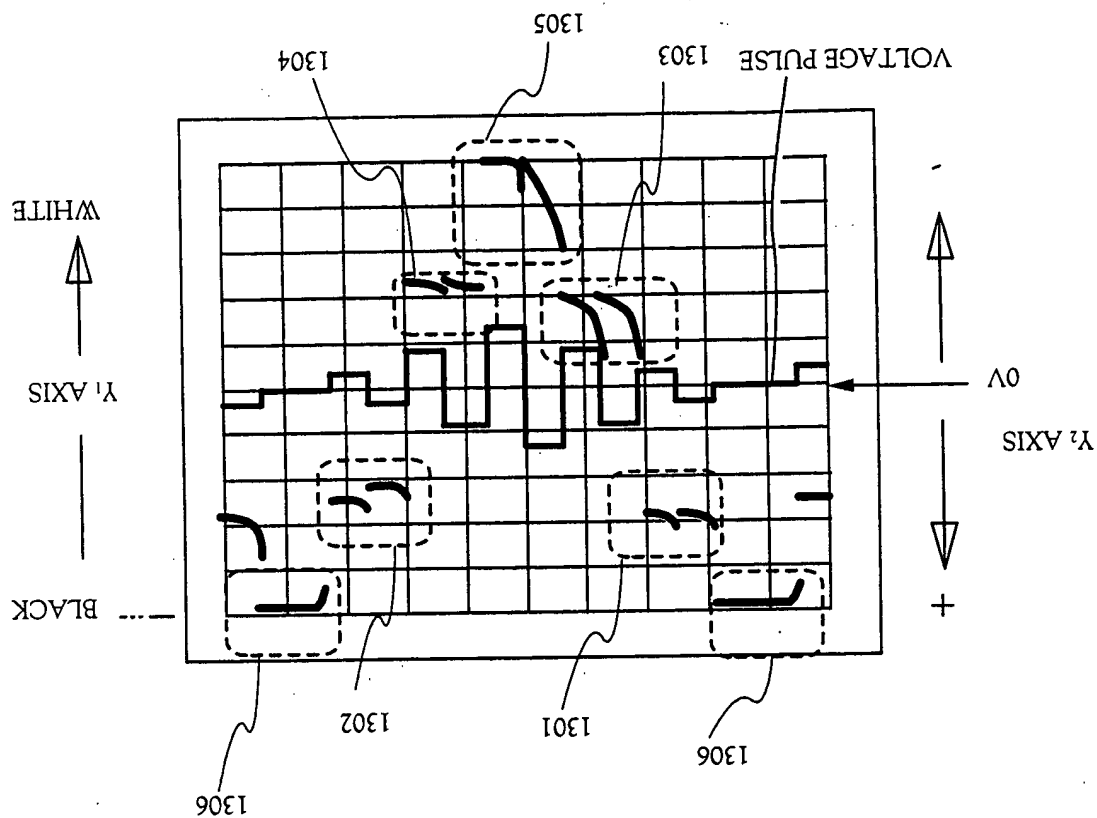
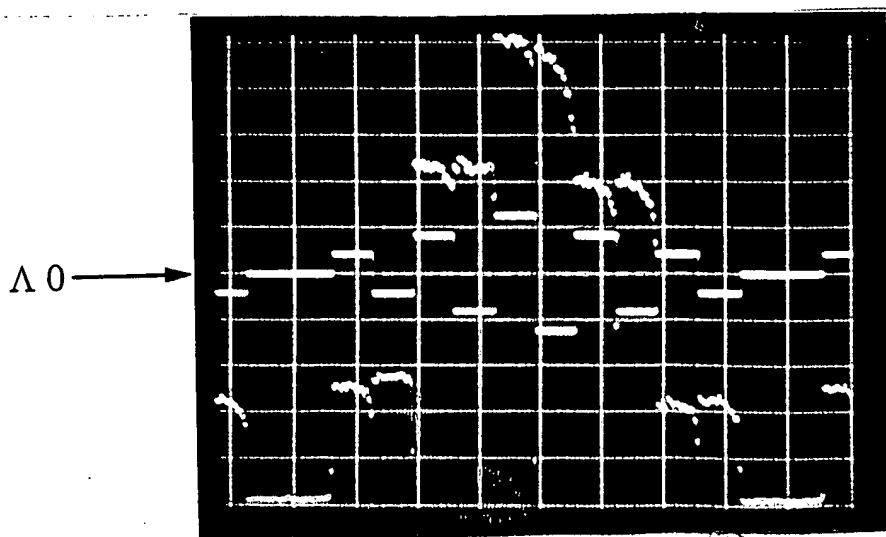


FIG. 13A



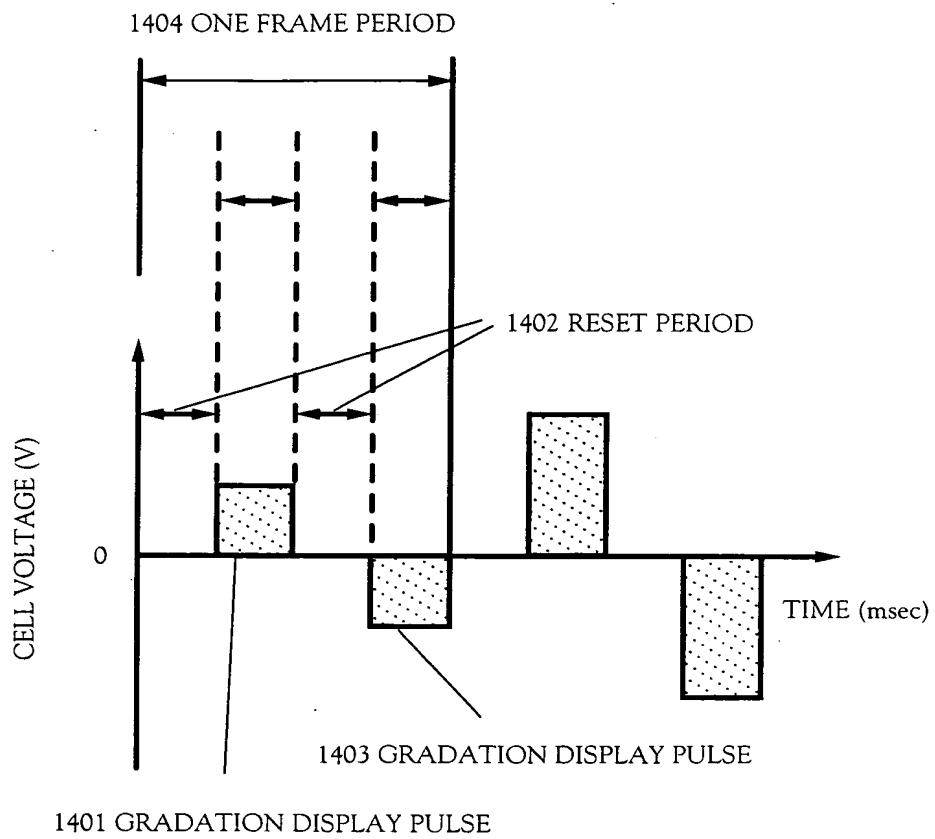


FIG. 14

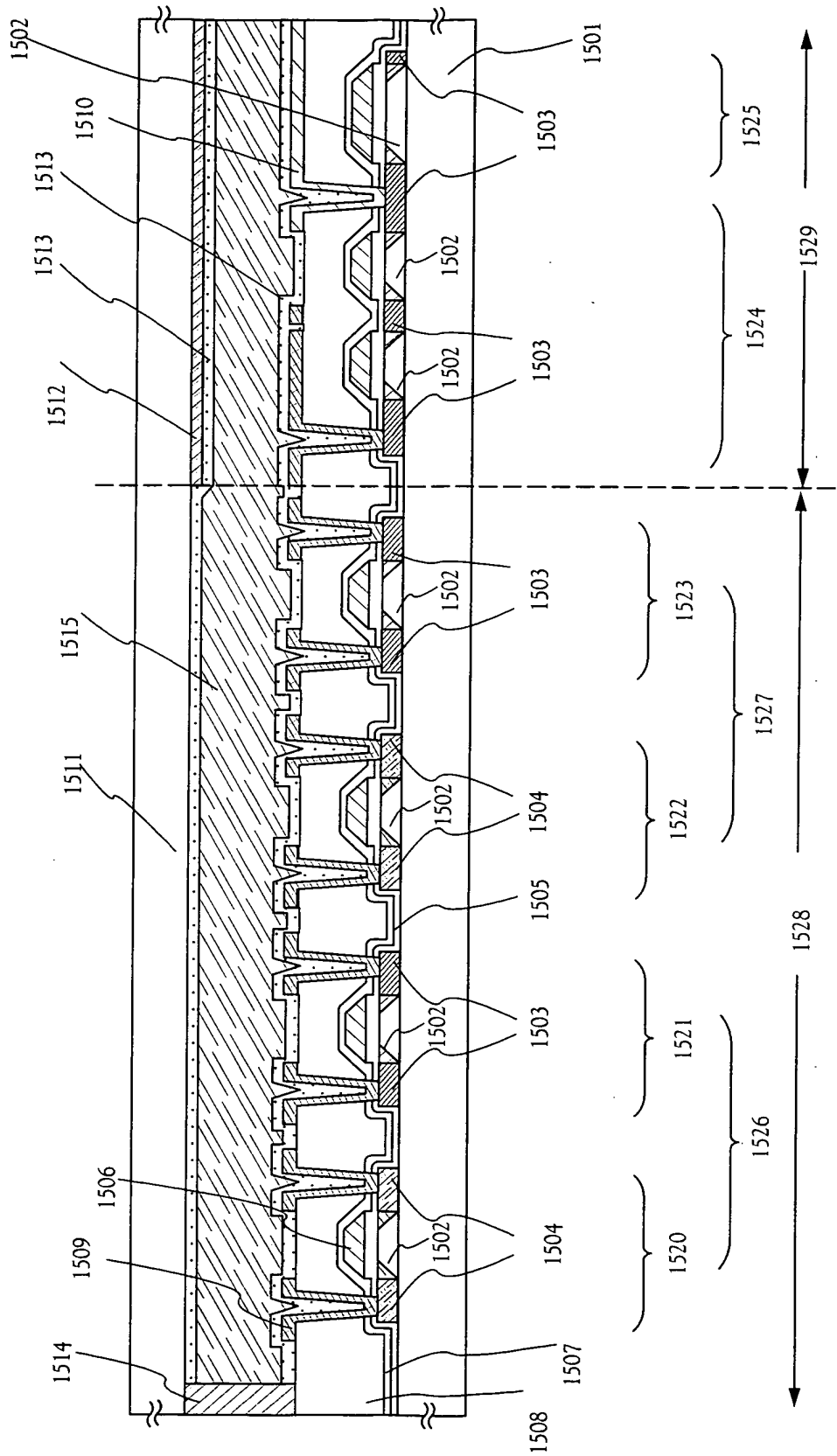


FIG. 15

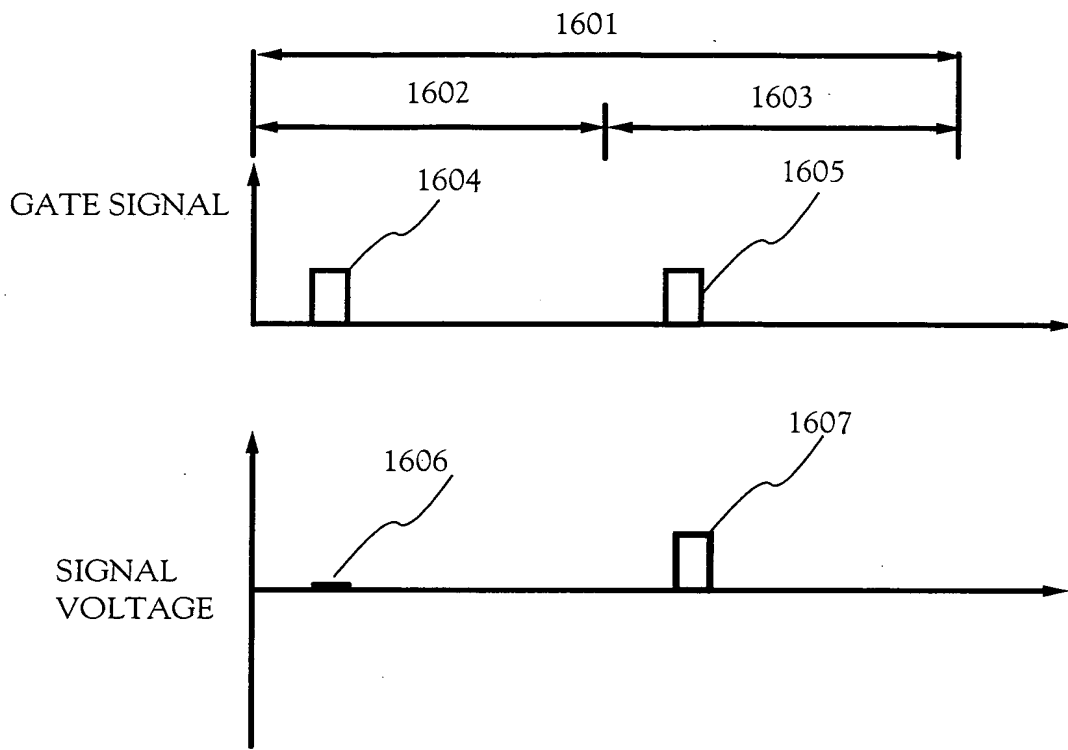


FIG. 16

OPTICAL RESPONSE OF THRESHOLDLESS LIQUID CRYSTAL
WHEN "0V" RESET PERIOD IS PROVIDED

FIG. 17B

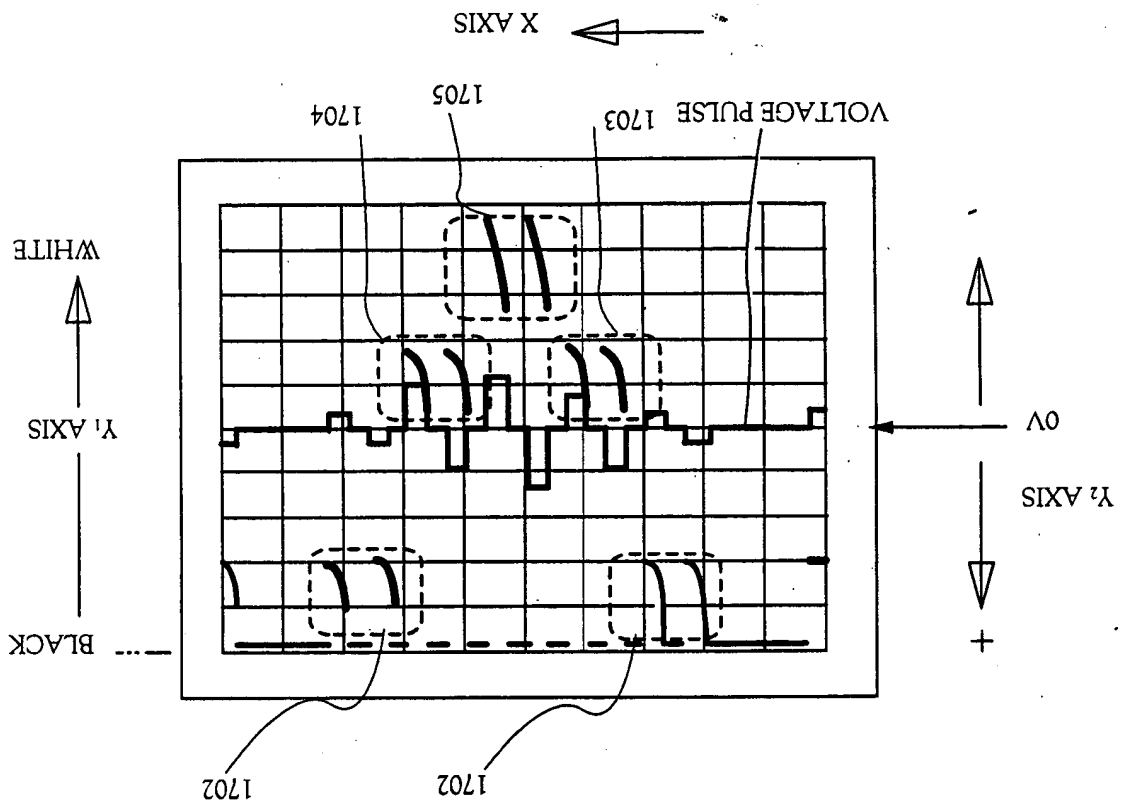
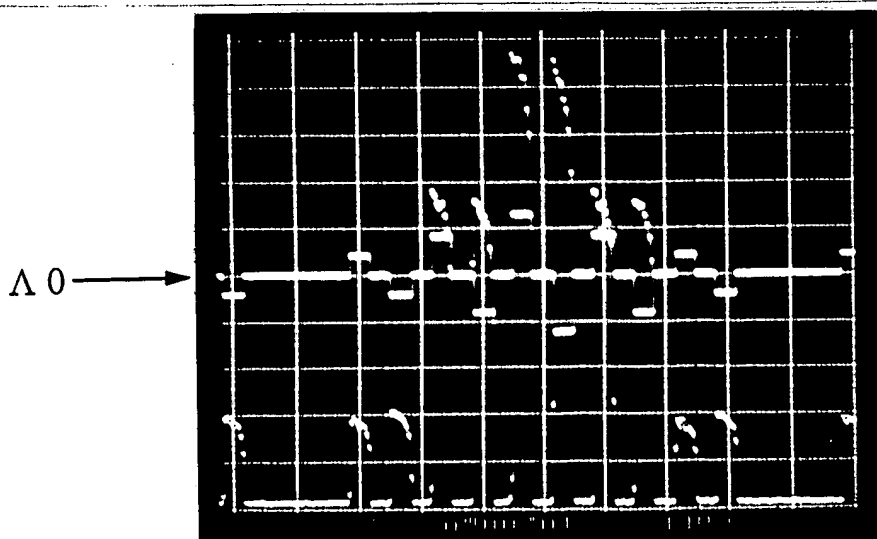


FIG. 17A



The graph displays two channels, CH1 and CH2, on a grid. The vertical axis is labeled 'Y-SCALE 10.00mV' and the horizontal axis is labeled 'X-SCALE 500.0mV'. Both channels show a noisy signal with a prominent peak centered on the X-axis. The peak for CH1 is slightly higher than the peak for CH2. The signals are noisy throughout, with many small fluctuations visible in the baseline.

The graph displays two curves, labeled 'MEM' and 'NEW', plotted on a grid. The vertical axis is labeled 'Y-SCALE' and '20.0000'. The horizontal axis is labeled 'X-SCALE' and '2.0000'. The curves are nearly identical, showing a sharp peak at the center of the X-SCALE range, with the 'NEW' curve slightly higher than the 'MEM' curve.

Figure 1 is a graph showing the dependence of the logarithm of the rate of polymerization ($\log R_p$) on the logarithm of the concentration of the initiator ($\log [I]$). The y-axis is labeled $\log R_p$ and ranges from 0 to 1. The x-axis is labeled $\log [I]$ and ranges from 0 to 1. Two data series are plotted: one for CH_2 (open circles) and one for CH_3 (filled circles). Both series show a linear increase in $\log R_p$ with $\log [I]$, with a slope of approximately 0.5. The CH_2 series is slightly higher than the CH_3 series.

FIG. 18D THICKNESS OF ORIENTATION FILM: 220 nm

CH1 Y-SCALE 20.00mV

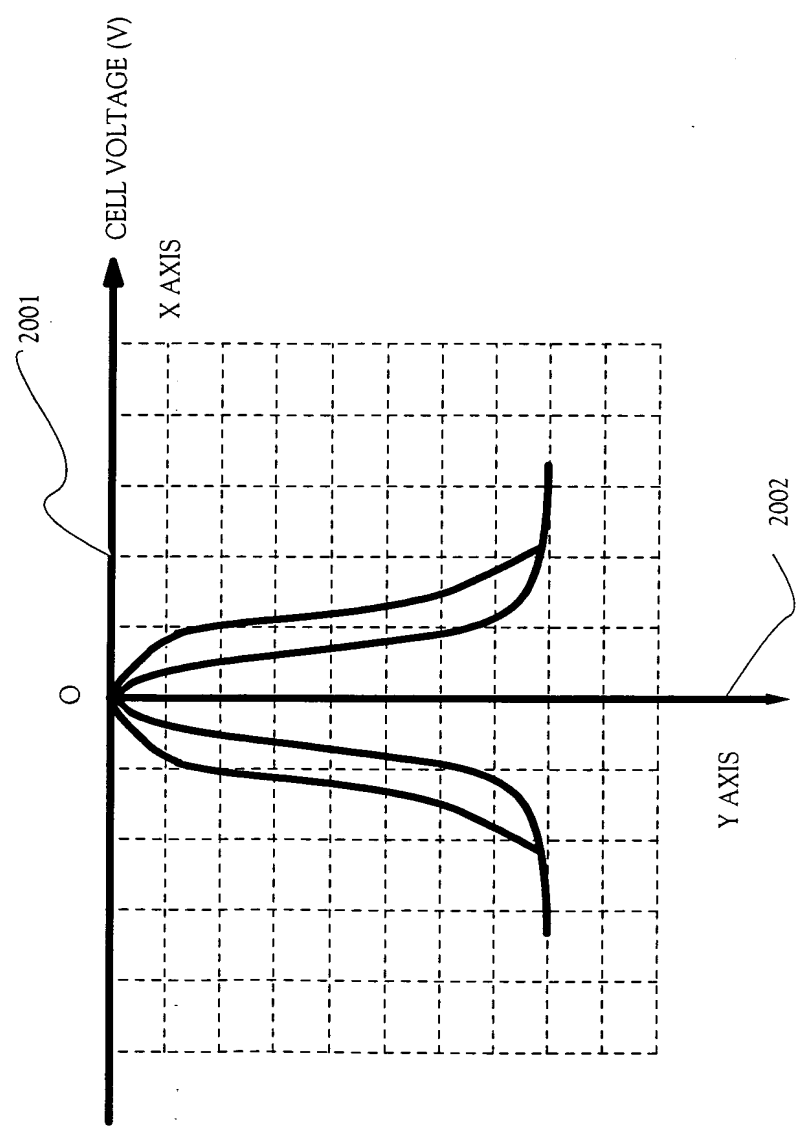
CH2 X-SCALE 2.000 u

NEW

NEW

FIG. 19D THICKNESS OF ORIENTATION FILM: 220 nm

CELL VOLTAGE (V)



BRIGHTNESS MEASURED WITH PHOTO MULTIPLIER
AS LIGHT RECEPTER (mV)

FIG. 20